



National Analytical Brains Competition 2020

NAB Competition 2020 - Grade 05

Mathematical Ability

All questions are mandatory. Please note there is no negative marking:

1. Find the value of $64 \div 16 \times 5 + 20 - 30$

- 11
- 10
- 14
- 12
- None of these

2. Which of the following statements is not true?

- Both addition and multiplication are closed for whole numbers.
- Addition and multiplication both are commutative for whole numbers.
- Zero is the identity for multiplication of whole numbers.
- Multiplication is distributive over addition for whole numbers.

3. Which of the following pairs is not co-prime?

- 42, 60
- 45, 4
- 75, 2
- 31, 13



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4. The number of trays of eggs available for making cake is 85000. Each tray has 9 eggs. Each cake is made with 200 eggs. How many cakes can be made from the eggs available?

- 3825
- 3805
- 3725
- none of these

5. Every whole number has its predecessor as a whole number.

- True
- False
- Can't Say
- None of these

6. How many times does 8 go into 1244, and what is the remainder?

- 155, R=4
- 152, R=4
- 154, R=7
- None of these



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7. Find the value of $7614 + 832 \times 48 \div 16 - 8$

- 11504
- 10102
- 14052
- 11204

8. Two tankers contain 140 liters and 290 liters of petrol, respectively. Find the capacity of the largest measuring container which can measure the petrol of each tanker exactly?

- 406
- 29
- 14
- 10

9. Rohit was asked to multiply a number by 25. He instead multiplied the number by 52 and got the answer 324 more than the the correct answer. What was the correct answer?

- 11
- 12
- 27
- Cannot be calculated



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10. In a question of division with zero remainder a candidate took 12 as divisor, instead of 21. The quotient obtained by him was 35. The correct quotient is

- 0
- 12
- 13
- 20

11. What is four times the difference between 8th multiple of 15 and 2nd multiple of 13?

- 94
- 376
- 48
- 367

12. Rahul and Akshan are friends as well as hockey coaches in the same school. Rahul goes to school on every 2nd day while Akshan goes there on every 7th day to deliver coaching classes. If they both delivered the coaching sessions today, how many days, in the next 112 days, will both of them be delivering the coaching sessions on the same day?

- 16
- 8
- 14
- 12



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13. 25,32,481 people live in state A. 2,82,745 people moved from state B to state A and 18,452 people moved from state A to state C. How many people now live in state A?

- 3796783
- 3796774
- 2796774
- none of these

14. A truck has capacity of carrying 90,450 kg. How many boxes of 45 kg each can it carry at the most?

- 210
- 4070250
- 2010
- 2100

15. Determine the two numbers nearest to 10000 which are exactly divisible by 6, 5, 9 and 3.

- 9990, 10080
- 9995, 10060
- 9999, 10008
- 9909, 10008



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16. In a city, one out of every 5 people is illiterate. If there are 2050 men and 1800 women in the city. How many people are literate?

- 770
- 3080
- 410
- None of these

17. Sonu had ₹ 1000000 with him. He purchased a colour T.V. for ₹ 15480, a motor cycle for ₹ 45520 and a flat for ₹ 770000. How much money was left with him?

- ₹ 199000
- ₹ 862000
- ₹ 169000
- None of these

18. On dividing 16075 by a number, the quotient is 16 and remainder is 43. Find the divisor.

- 102
- 1001
- 1002
- None of these



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19. 5 dozen of bananas are bought for ₹ 250. What will be the cost of 132 bananas?

- ₹ 550
- ₹ 560
- ₹ 580
- None of these

20. What least number must be subtracted from 4000 so that the number is completely divisible by 19 ?

- 50
- 10
- 20
- None of these



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Logical Reasoning Ability

All questions are mandatory. Please note there is no negative marking:

Q 21: Ritvik gave ₹200 to buy this toy. How much money will he get back?



₹ 174.08

- ₹ 26.92
- ₹ 26.02
- ₹ 25.92
- ₹ 25.02

Q 22: Which one of the following is the water image of the given word?

C O L D

D J O D

A

C O F D

B

D T O D

C

C O L D

D

- A
- B
- C
- D



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Q 23: Sachit is 149 cm tall and Ronit is 13 cm shorter than Sachit. If Viren is 10 cm taller than Ronit, then by What is the height of Viren?

- 149
- 146
- 139
- 126

Q 24: Choose the correct option to complete the series given below.

C CD CDE _____

- ABCD
- CFE
- CDEF
- CDFG

Q 25: If 'B' stands for '+', 'E' stands for '-', 'R' stands for 'x', 'H' stands for '÷' then

6 R 5 B 21 H 3 E 4 = ?

- 13
- 48
- 38
- 33

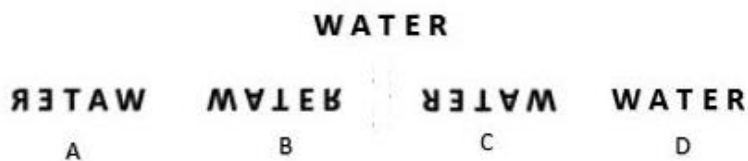


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Q 26: Rony walks towards South. After walking a certain distance he turns his right.
In which direction is he now.

- East
- West
- North
- South

Q 27: Which one of the following is the Mirror image of the given figure?



- A
- B
- C
- D

Q 28: Find the missing number, if a certain rule is followed in the given figure.



- 8
- 6
- 5
- 7



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Q 29: Which one of the following shows the highest amount?

- ₹ 35.5
- ₹ 35.05
- ₹ 35.15
- ₹ 35.49

Q 30: If "RAT" is termed as "calculator", a "Calculator" is termed as "Mouse", and "Mouse" is termed as "Key board", and a "key board" is termed as "camera". Then which will help you to do the calculation:

- RAT
- Calculator
- Mouse
- Camera

Q 31: There is a certain relation between two words given on one side of :: . Out of the below four alternatives, one word will have similar relation with the word on other side of ::

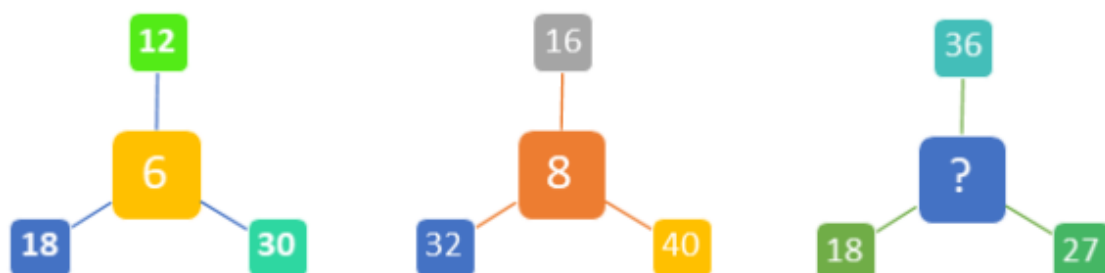
Walking : Running :: Smiling : ?

- Feeling
- Laughing
- Face
- Weeping



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Q 32: Find the missing number in the given pattern.



- 6
- 9
- 12
- 18

Q 33: Choose the word which is least like the other words given below:

- Cow
- Deer
- Donkey
- Rhinoceros
- Goat

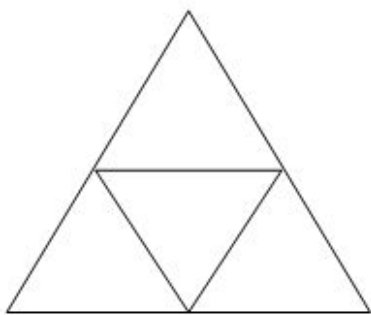
Q 34: If CARE could be given the code number 31185, what code number can be given to HEART?

- 8511820
- 8512821
- 9611820
- 8511719



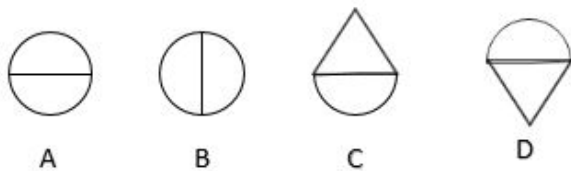
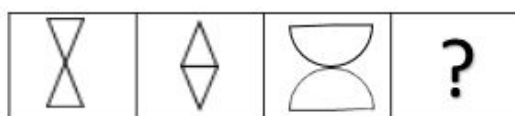
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Q 35: Find the total number of triangles in the below figure:



- 4
- 5
- 6
- 7

Q 36: Which shape will come in “?”



- A
- B
- C
- D



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Q 37: If

$$\text{If } \text{cup} + \text{cup} + \text{cup} + \text{cup} = \text{bucket}$$

$$\text{bucket} + \text{bucket} = 32 \text{ L}$$

$$\text{Then } \text{bucket} + \text{cup} = ?$$

- 4 L
- 20 L
- 16L
- 12 L

Q38: Find the missing number, if the same rule is followed in all the three figures.

3	8	7
15	48	?
5	6	9

- 72
- 63
- 81
- 16



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Q 39: What is unfit in the following series?

ACE MOQ RTW LNP

- ACE
- MOQ
- RTW
- LNP
- None of these

Q 40: Mohit is heavier than Sukoon. Rita is lighter than Anita. Sukoon is heavier than Anita. Who is the lightest?



- MOHIT
- SUKOON
- RITA
- ANITA



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Real Life Problems

Questions from 41 to 45 are correlated:

There are five sisters – Aarzoo, Dhwani, Ekanshi, Hansa and Mehar. Ekanshi is the tallest. Aarzoo is shorter than Dhwani but taller than Mehar. Hansa is a little shorter than Dhwani and little taller than Aarzoo.

Q 41: Who is the shortest?

- Mehar
- Hansa
- Aarzoo
- Dhwani

Q 42: If they stand in the order of increasing heights, who is the second?

- Hansa
- Aarzoo
- Dhwani
- Mehar

Q 43: If they stand in the order of their heights, who will be in the middle?

- Dhwani
- Mehar
- Aarzoo
- Hansa



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Q 44: Who is the second tallest?

- Hansa
- Dhvani
- Aarzo
- Mehar

Q 45: Who is taller than Hansa but shorter than Ekanshi?

- Dhvani
- Mehar
- Aarzo
- Data Inadequate

Questions from 46 to 50 are interrelated to each other:

There are 4 Engineers working in an office. Each Engineer has 3 supervisors assisting them. There are two receptionists, Jaya and Kavya, working at the reception.

Q 46: How many people are working in the Office?

- 9
- 14
- 18
- 16



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Q 47: On Monday, 27 persons made complaints with each Engineer. However, 8 of the Persons made false complaints and got rejected. How many real complaints were filed on Monday?

- 108
- 100
- 19
- 35

Q 48: On Tuesday, Jaya answered 52 phone calls and Kavya answered 14 less calls than Jaya did. How many calls were answered in total?

- 38
- 66
- 90
- 86

Q 49: On Wednesday, two engineers went on leave. And on that day Jaya received 28 complaints and Kavya received 24 complaints. How many complaints were attended by each engineer, if both attended equal number of complaints, with no calls remained unattended?

- 13
- 26
- 52
- None of these



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Q 50: For every call received a receptionist gets ₹ 25 as bonus. Then on Wednesday who earned more money and how much more?

- Kavya , ₹ 600
- Jaya, ₹ 700
- Kavya, ₹ 100
- Jaya, ₹ 100